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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/128,304 08/03/98 WILLIS

N CRDP-2700

EXAMINER

QM12/0802

KATHLEEN A FROST
KIMBACH AND KIMBACH
2001 FERRY BUILDING
SAN FRANCISCO CA 94111

MANTIS MERCADERE

ART UNIT

PAPER NUMBER

3737

DATE MAILED:

08/02/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/128,304

Applicant(s)
Willis et al.

Examiner
Eleni Mantis Mercader

Group Art Unit
3737



☒ Responsive to communication(s) filed on Aug 3, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-58 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-58 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 1 and 2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Specification

1. The attempt to incorporate subject matter into this application by reference to 08/905,090 and 08/732,511 is improper because the incorporation of essential material by reference to another application is improper.
2. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

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***Claim Rejections - 35 USC § 102 as anticipated by or, in the alternative, under
Claim Rejections - 35 USC § 103***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2 and 15 are rejected under 35 U.S.C. 102(b) as anticipated by Halmann et al.'856 or, in the alternative, under 35 U.S.C. 103(a) as obvious over Halmann et al.'856.

Halmann et al.'856 teach a method of generating a three dimensional graphical model of a region located within a living body, comprising the steps of:

- (a) generating a three dimensional model of a region of interest (col. 3, lines 29-35);
- (b) determining the three-dimensional location of a physical characteristic in the region of interest using at least one probe positioned within the living body (col. 3, lines 36-38) wherein the coronary artery pattern is the physical characteristic determined and inherently one probe positioned within the living body is used or in the alternative it would be well within the

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knowledge of skilled artisans at the time that the invention was made to have used a probe to derive an angiogram;

(c) deforming the model to at least approximately incorporate the physical characteristic at the determined three dimensional location (col. 3, lines 39-43; and col. 3, lines 1-7; wherein the heart model is deformed in order to superimpose the coronary artery on the heart model); and

(d) displaying the model on a graphical display (col. 3, lines 44-45).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Haim'946 in view of Halmann et al.'856.

Ben-Haim'946 teaches a method and an apparatus for determining the relative three-dimensional location of a medical device such as a probe positioned in the region of interest in the living body and graphically representing the medical device on the 3-D image area of interest such as the heart (col. 3, lines 64-67 and col. 4, lines 1-8; and col. 11, lines 66-67 and col. 10, lines 1-10). Ben-Haim'946 also teach the use of a medical device which has one mapping/ablation electrode detecting electrical activity and wherein the activity is superimposed on the image of

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interest and also having reference catheters which can be tracked using a locating method using acoustic waves and wherein the location of the reference catheters is used to align the location of the heart chamber with respect to all the catheters (col. 5, lines 23-30, col. 9, lines 34-35 and 45-51, col. 9, lines 66-67 and 1-10, col. 10, lines 11-50, and col. 11, lines 14-28).

Even though Ben-Haim'946 teaches superposition of the activation map and catheter locations on a 3-D image, Ben-Haim'946 does not teach the superposition of these features on a model of the organ of interest such as the heart.

Halmann et al.'856 teach the use of a graphical model of an organ of interest such as the heart and deforming the model for superposition on the graphical model of anatomical features of interest and furthermore comparing the heart model with other pathological state models to determine the presence of dysfunction (col. 3, lines 1-65).

It would have been obvious to one skilled in the art at the time the invention was made to have used the model of Halmann et al.'856 in the invention of Ben-Haim'946 as an alternative functional equivalent of a 3D-representation of the heart in order to display the mapping/ablation procedure as taught by Ben-Haim'946.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicants are invited to comment on the relevancy of the following patents:

Vesely'673 teach a system for carrying out surgery, biopsy and ablation of a tumor or other physical anomaly.

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Winslow et al.'899 teach the use of a computational system and method for modeling the heart.

Budd et al.'108 teach the use of an electrophysiology mapping system.

9. Please note that Examiner has not received the non-patent literature as indicated in the IDS statement. Please supply a copy of those references with your next correspondence so that those documents can be considered.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni Mantis Mercader whose telephone number is (703) 308-0899. The examiner's supervisor, Mr. Marvin Lateef, can be reached on (703) 308-3256.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858. The fax phone number for this group is (703) 308-0758.



Marvin M. Lateef
Supervisory Patent Examiner
Group 3700



EMM
July 22, 2000.